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### **REMARKS**

Applicants appreciate the continued thorough examination of the present application that is reflected in the Official Action of July 9, 2004. Applicants also appreciate the Examiner's indication in the telephone interview of July 13, 2004 and in the Interview Summary form PTOL-413, mailed July 16, 2004, that the Official Action is indeed a non-final Official Action. For the purposes of MPEP Section 713.04, the above constitutes a statement of the substance of the interview.

In a sincere effort to place the application in condition for allowance, or to substantially narrow the issues for consideration on appeal, many of the claims have been canceled and many of the Examiner's rejections have been acquiesced to.

Applicants respectfully request reconsideration of the outstanding rejections for the reasons that now will be described.

## The Constructive Election Is Not Being Contested

Claims 75-86 were withdrawn due to an alleged constructive election. Applicants do not agree that a new search burden was imposed. However, in order to narrow the issues and advance the application to allowance, Applicants have canceled Claims 75-86, without prejudice to pursuing Claims 75-86 in a divisional application. Due to the cancellation of many other claims, only independent Claims 87, 92 and 97 remain, and all the pending dependent claims have been amended, as necessary, to depend therefrom.

## The Claims Are Directed to Statutory Subject Matter

In response to the rejection under 35 USC §101, Applicants wish to note that independent method Claim 87 now recites:

87. (Currently Amended) A method of conducting a process hazard analysis (PHA), comprising the following steps that are performed in a data processing system:

selecting a chemical process to be evaluated; selecting a study type to be performed on the chemical process;

conducting the selected study type on the chemical process in the data processing system, wherein the chemical process is evaluated in the data processing system for the presence of a hazard scenario;

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generating a resolution plan to the hazard scenario in the data processing system, wherein the resolution plan comprises a final action item, at least one interim action item to be completed prior to the completion of the final action item and at least one target date for completing an action item; and

tracking the resolution plan in the data processing system, to monitor for completion of action items, wherein the status of the resolution plan is monitored for completion of action items by the target date. (Emphasis added.)

The Official Action states at Paragraph 9:

9. Claims 1-68 and 87-101 are rejected because said claims are directed to a method, data processing system, and computer program product comprising steps for analyzing data directed to PHA without any physical alteration step, which is considered to be non-statutory subject matter. "For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory." (MPEP § 2106 (IV)(B)(2)(b), part ii). Similar to the nonstatutory example above, the instant invention comprises algorithmic steps for analyzing data directed to PHA without any physical alteration resulted from said analysis. (Emphasis added.)

Applicants respectfully submit, however, that the test for statutory subject matter is not whether a "physical alteration" takes place. Rather, as stated in MPEP §2106(II)(A):

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful. (Emphasis added.)

The above-underlined language of Claim 87 clearly defines a practical application that produces a useful, concrete and tangible result. The practical application includes conducting a study type on a chemical process and evaluating for the presence of a

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hazard scenario. The useful, concrete and tangible result includes generating a resolution plan, and tracking the resolution plan.

Moreover, as noted at MPEP Page 2100-12:

In practical terms, claims define nonstatutory processes if they:

- consist solely of mathematical operations without some claimed practical application (i.e., executing a "mathematical algorithm"); or - simply manipulate abstract ideas, e.g., a bid (*Schrader*, 22 F.3d at 293-94, 30 USPQ2d at 145859) or a bubble hierarchy (*Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application.

Again, Applicants respectfully submit that the above-underlined recitations of Claim 87 clearly recite a practical application that produces a useful, concrete and tangible result.

In fact, Applicants respectfully submit that Claim 87 is clearly statutory, because it falls under one of the "safe harbors" defined at MPEP Pages 2100-15 - 2100-17. In particular, Claim 87 clearly relates to "Manipulation of Data Representing Physical Objects or Activities (Pre-Computer Process Activity)" because Claim 87 describes, at length, the evaluation and study of data related to chemical processes, hazard scenarios and resolution plans for hazard scenarios.

For at least these reasons, statutory subject matter is present. Applicants also respectfully submit that the above analysis applies to all of the remaining independent and dependent claims and, accordingly, respectfully requests withdrawal of the rejection under 35 USC §101.

## The Rejections Under 35 USC §112, Second Paragraph Have Been Overcome

The Official Action rejected Claims 87 and 92 due to the inconsistent use of "on" and "in". Claims 87 and 92 have been amended to recite "in the data processing system" to overcome this rejection.

# The Rejections Under 35 USC §112, First Paragraph Have Been Overcome

The claims were rejected under 35 USC §112, first paragraph as allegedly containing new matter due to the first two "storing" recitations. In order to narrow the issues for consideration and advance the application to allowance, these recitations have been canceled from all of the pending independent claims.

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However, Applicants wish to note, for the purposes of appeal, if necessary, that these recitations were placed in the claims earlier in response to the Examiner's prior assertion that the claim elements of "selecting" can be interpreted so broadly as to read on selecting a study type or no study type, or selecting a process or no process. Applicants respectfully submit that the present claim recitations of "selecting a chemical process to be evaluated" and "selecting a study type to be performed on the chemical process" should be interpreted nontrivially to mean selection from among a plurality of processes and/or study types, rather than interpreted trivially as selecting no study type or no process.

Applicants also wish to note that the selection process is described extensively in the present application, for example at Page 4, lines 17-32, Page 14, line 29-Page 15, line 19, Page 16, lines 24-32, in Figure 2 and in the description thereof at Page 19, line 4-Page 20, line 14. However, in the interest of narrowing the issues for consideration and advancing the application to allowance, the allegedly unsupported claim language has been canceled.

## Independent Claims 87, 92 and 97 Are Patentable

Claims 87, 92 and 97 were rejected under 35 USC §103(a) as being unpatentable over Herrington in combination with Heinlein et al. Applicants respectfully submit, however, that neither Herrington nor Heinlein et al. describes or suggests the following recitations of Claim 87, or the analogous recitations in Claims 92 or 97:

...generating a resolution plan to the hazard scenario in the data processing system, wherein the resolution plan comprises a final action item, at least one interim action item to be completed prior to the completion of the final action item and at least one target date for completing an action item....

In particular, Herrington does not appear to contain any description of resolution plans. The only potentially relevant portions of Heinlein et al. are Heinlein et al. Column 2, lines 31-36 and Column 6, lines 53-55, that state:

5. Establish a system to promptly address findings and recommendations, assure recommendations are documented and resolved, develop a written schedule for completing actions, communicate actions to operating, maintenance and other employees, and to perform and document the actions taken....

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The TeamFocus® session output is copied to diskette and loaded into a project management tool for analysis and tracking.

However, these passages do not provide any description or suggestion of the abovequoted recitations of Claim 87, nor does the Official Action appear to cite any portion of Herrington or Heinlein et al. that describe or suggest these recitations.

Accordingly, Claims 87, 92 and 97 are patentable for at least these reasons.

Moreover, since all of the dependent claims now depend directly or indirectly from these claims, they are also patentable for at least these reasons.

Moreover, many of the dependent claims are separately patentable. For example, Claim 91 recites:

91. The method of Claim 90, wherein the resolution database comprises one or more parameters selected from the group consisting of the names of persons responsible for carrying out the resolution plan, departments responsible for carrying out the resolution plan, sites at which the resolution plan will be carried out, target dates for completion of the resolution plan, completed action items, and uncompleted action items.

Similar recitations may be found in Claims 96 and 101. In this regard, Applicants wish to note that both Herrington and Heinlein et al. appear to be directed to conducting a single study in a single department. There does not appear to be any description or suggestion in either of these references that the resolution plan may be completed by multiple departments and multiple sites.

Applicants note that Page 8, Paragraph 28 of the Official Action states:

28. An apparatus is provided for inputs and retrieving the above documents from a database (Abstract etc.), as in instant claims 23, 24, 41-46, 62-68, 90, 91, 95, 96, 100, and 101.

However, regardless of whether Heinlein et al. provides an apparatus for inputs and retrieving documents from a database, the above-quoted recitations of Claims 91, 96 and 101 are not described or suggested. Accordingly, these claims are independently patentable.

### Conclusion

In order to expedite allowance and eliminate as many issues as possible, independent Claims 1, 25 and 47, and many of the pending dependent claims, have been canceled. Moreover, claim amendments have been made to acquiesce to many

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of the Examiner's rejections. Applicants have also shown above that the pending claims are statutory and are not described or suggested by Herrington and/or Heinlein et al. Accordingly, Applicants respectfully request allowance of the present application and passing the application to issue.

Respectfully submitted

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#### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, PR November 3, 2004.

Susan E. Freedman

Date of Signature: November 3, 2004